Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Claims 1-9 are canceled.

10. (Previously Presented) A hybrid power supply comprises:

a switching type DC/DC boost type converter that receives energy from a primary cell with the primary cell being an alkaline cell, Zn-air cell, fuel cell, solar cell, or another current limited power source, and is arranged to deliver the energy to a rechargeable cell with the rechargeable cell being an Li-Ion or Li-Polymer rechargeable cell;

a circuit disposed to control the switching type DC/DC converter, the circuit comprising:

a resistor voltage divider coupled a feedback input of the converter, the resistor voltage divider having a resistance value selected to provide from the DC/DC converter a fixed output voltage that is less than the full charge voltage of the rechargeable cell.

11. (Currently Amended) The hybrid power supply of claim 10, further comprising:

a primary battery current sensor/comparator, included in ~~the~~ a feedback control loop of the DC/DC converter that controls in part operation of the converter to provide constant current discharge on the primary battery side of the hybrid power supply.

Claims 12 and 13 are canceled.

14. (Previously Presented) The hybrid power supply of claim 10 wherein the switching type DC/DC boost type converter delivers an output voltage that corresponds to about 90% of the charge voltage of the rechargeable cell.

15. (Previously Presented) A method of operating a hybrid power supply comprises:

delivering energy from a primary cell to a rechargeable cell the rechargeable cell being an Li-Ion or Li-Polymer rechargeable cell with the energy delivered through a switching type DC/DC boost type converter at a fixed voltage that is less than the full charge voltage of the rechargeable cell.

16. (original) The method of claim 15, further comprising:

controlling a circuit that senses primary battery current, and controls in part operation of the converter to provide a constant current discharge on the primary battery side of the hybrid power supply.

17. (original) The method of claim 15 wherein the primary cell is an alkaline cell, Zn-air cell, fuel cell or solar cell, or another current limited power source.

Claim 18 is canceled.

19. (Previously Presented) The method of claim 15 wherein the circuit delivers an output voltage that corresponds to about 90% charge of the rechargeable cell.

20. (Previously Presented) A hybrid power supply comprises:

a switching type DC/DC boost type converter that receives energy from a primary battery cell, with the primary battery cell being an alkaline cell, Zn-air cell, fuel cell, solar cell, or another current limited power source, and delivers energy to a rechargeable cell, the rechargeable battery being a Li-Ion or Li-Polymer rechargeable cell, and with the switching type DC/DC converter set to provide a fixed output voltage that is less than the full charge voltage of the rechargeable cell; and

an operational amplifier with a primary battery current sensing resistor to provide primary battery current control with the output of the amplifier coupled in a closed feedback loop of the DC/DC converter and the closed feedback loop of the converter

further comprises a resistor coupled between output and feedback terminals of the converter.

21. (Previously Presented) The hybrid power supply of claim 20, further comprising:

a circuit including a primary battery current control that senses primary battery current, and controls in part operation of the converter to provide constant current discharge on the primary battery side of the hybrid power supply.

22. (Previously Presented) The hybrid power supply of claim 20 wherein the circuit further comprises:

a primary current sense amplifier/comparator and a power shutdown circuit to shut down the primary current sense amplifier/comparator.

23. (Previously Presented) The hybrid power supply of claim 20 wherein the circuit delivers an output voltage that corresponds to about 90% charge of the rechargeable cell.

24. (Previously Presented) The hybrid power supply of claim 20 wherein the primary cell is an alkaline cell, Zn-air cell, or fuel cell.

25. (Previously Presented) The hybrid power supply of claim 20 wherein the primary cell is a fuel cell.

26. (Previously Presented) The hybrid power supply of claim 20 wherein the primary cell is an alkaline cell.

27. (New) A hybrid power supply comprises:

a switching type DC/DC boost type converter that receives energy from a primary battery cell and is arranged to deliver the energy to a rechargeable cell, the DC/DC

converter having a feedback input set to provide a fixed output voltage that is less than the full charge voltage of the rechargeable cell: and

a pair of external resistors coupled to the feedback input of the converter to adjust the fixed output voltage to be less than the full charge voltage of the rechargeable cell.

28. (New) The hybrid power supply of claim 27, further comprising:

a circuit including a primary battery current control that senses primary battery current, and controls in part operation of the converter to provide constant current discharge on the primary battery side of the hybrid power supply.

29. (New) The hybrid power supply of claim 27 wherein the circuit further comprises:

a primary current sense amplifier/comparator and a power shutdown control circuit to shut down the primary current sense amplifier/comparator.

30. (New) The hybrid power supply of claim 27 wherein the primary battery is an alkaline cell, Zn-air cell, fuel cell, solar cell, or another current limited power source.

31. (New) The hybrid power supply of claim 27 wherein the rechargeable battery is a Li-Ion or Li-Polymer rechargeable cell.

32. (New) The hybrid power supply of claim 29 wherein the primary battery control comprises:

an operational amplifier with a primary battery current sensing resistor to provide primary battery current control the output of the amplifier coupled in a closed feedback loop of the converter.

33. (New) The hybrid power supply of claim 32wherein the closed feedback loop of the converter further comprises:

a resistor coupled between output and feedback terminals of the converter.

34. (New) The hybrid power supply of claim 27 wherein the circuit delivers an output voltage that corresponds to about 90% charge of the rechargeable cell.

35. (New) A hybrid power supply comprises:

a primary cell with the primary cell being an alkaline cell, Zn-air cell, fuel cell, solar cell, or another current limited power source;

a rechargeable cell, the rechargeable cell being an Li-Ion or Li-Polymer rechargeable cell;

a switching type DC/DC boost type converter that receives energy from the primary cell and is arranged to deliver the energy to the rechargeable cell;

a circuit disposed to control the switching type DC/DC converter to provide from the DC/DC converter a fixed output voltage that is less than the full charge voltage of the rechargeable cell in order to recharge the rechargeable cell to less that its full charge capacity.

36. (New) The hybrid power supply of claim 35 wherein the circuit disposed to control the switching type DC/DC converter comprises:

a resistor voltage divider coupled to a feedback input of the converter, the resistor voltage divider having a resistance value selected to provide the fixed output voltage from the DC/DC converter; and

a primary battery current sensor/comparator included in a feedback control loop of the DC/DC converter that controls in part operation of the converter to provide constant current discharge on the primary battery side of the hybrid power supply.

37. (New) The hybrid power supply of claim 35 wherein the switching type DC/DC boost type converter delivers an output voltage that corresponds to about 90% charge of the rechargeable cell.